

1 GENERAL

1.1 SECTION INCLUDES

1.1.1 Interior high-performance paint and coatings systems including surface preparation.

1.2 REFERENCES

1.2.1 Material Safety Data Sheets / Environmental Data Sheets: Per manufacturer's MSDS/EDS for specific VOCs (calculated per 40 CFR 59.406). VOCs may vary by base and sheen.

1.2.2 Performance Criteria:

1.2.2.1	ASTM D3359	Adhesion
1.2.2.2	ASTM D4060	Abrasive Resistance
1.2.2.3	ASTM D5894	Corrosion Weathering
1.2.2.4	ASTM D2794	Direct Impact Resistance
1.2.2.5	ASTM D2485	Dry Heat Resistance
1.2.2.6	ASTM D522	Flexibility
1.2.2.7	ASTM D3363	Pencil Hardness
1.2.2.8	ASTM D1653	Water Vapor Permeance

1.3 SUBMITTALS

1.3.1 Product Data: For Pro Industrial Multi-Surface Acrylic Eg-Shel paint system, include the following:

- 1.3.1.1 Product characteristics.
- 1.3.1.2 Surface preparation instructions and recommendations.
- 1.3.1.3 Primer requirements and finish specification.
- 1.3.1.4 Storage and handling requirements and recommendations.
- 1.3.1.5 Application methods.
- 1.3.1.6 Cautions for storage, handling and installation.

1.3.2 Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's products, colors and sheens available.

1.3.3 Verification Samples: For each finish product specified, submit samples that represent actual product, color, and sheen.

1.3.4 Coating Maintenance Manual: Upon conclusion of project, the Contractor or paint manufacturer/supplier shall furnish a coating maintenance manual. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used. "

1.3.5 One must also comply with the regulations regarding VOCs (CARB, OTC, SCAQMD, LADCO). To ensure compliance with local authority having jurisdiction, regulations and other rules, businesses that perform coating activities should contact the local district in each area where the coating will be used.

1.4 QUALITY ASSURANCE

1.4.1 Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

1.4.2 Paint exposed surfaces. If a color of finish, or a surface is not specifically mentioned, Contract Administrator will select from standard products, colors and sheens available.

- 1.4.3 Do not paint operating parts and labels unless indicated.
- 1.4.4 Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1.4.4.1 Finish surfaces for verification of products, colors and sheens.
 - 1.4.4.2 Finish area designated by Contract Administrator.
 - 1.4.4.3 Provide samples that designate finish coat.
 - 1.4.4.4 Compatibility and Adhesion: Check after one week of drying and curing by testing in accordance with ASTM D3359; Adhesion by tape test. If coating system is incompatible, additional surface preparation up to and including complete removal may be required.
 - 1.4.4.5 Do not proceed with remaining work until the Contract Administrator approves the mock-up.

1.5 DELIVERY, STORAGE, AND HANDLING

- 1.5.1 Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information.
 - 1.5.1.1 Product name, and type (description).
 - 1.5.1.2 Application and use instructions.
 - 1.5.1.3 Surface preparation.
 - 1.5.1.4 VOC content.
 - 1.5.1.5 Environmental handling.
 - 1.5.1.6 Batch date.
 - 1.5.1.7 Color number.
- 1.5.2 Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- 1.5.3 Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.
- 1.5.4 Handling: Maintain a clean, dry storage area, to prevent contamination or damage to the coatings.

1.6 PROJECT CONDITIONS

- 1.6.1 Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.7 EXTRA MATERIALS

- 1.7.1 Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- 1.7.2 Furnish Contract Administrator with an additional one percent of each material and color, but not less than 1 gal (3.8 l) or 1 case, as appropriate.

2 PRODUCTS

2.1 MANUFACTURERS

- 2.1.1 Acceptable Manufacturer: Sherwin-Williams, which is located at: 101 Prospect Ave.; Cleveland, OH 44115; ASD Toll Free Tel: 800-524-5979; Tel: 216-566-2000; Fax: 440-826-1989; Email: request infospecifications@sherwin.com; Web:www.swspecs.com.

2.1.2 Requests for substitutions will be considered in accordance with Bidding Procedures B7. Substitutes.

2.2 APPLICATIONS/SCOPE

2.2.1 High Performance Interior Paint and Coating Systems:

2.2.1.1 Metal: Structural steel, joists, trusses, beams, partitions and similar items.

2.3 PAINT MATERIALS - GENERAL

2.3.1 Paints and Coatings:

2.3.1.1 Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

2.3.2 Coating Application Accessories: Provide all sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.

2.3.3 Color: To be determined by Contract Administrator.

2.4 HIGH PERFORMANCE INTERIOR PAINT AND COATING SYSTEMS

2.4.1 Metal Exposed Ceilings: Structural Steel, Joists, Trusses, and Beams.

2.4.1.1 Multi-Surface Acrylic Coating:

2.4.1.1.1 Eg-Shel Finish:

2.4.1.1.1.1 1st Coat: S-W Pro Industrial Multi-Surface Acrylic Eg-Shel, B66-1560 Series.

2.4.1.1.1.2 2nd Coat: S-W Pro Industrial Multi-Surface Acrylic Eg-Shel, B66-1560 Series (3.75-5.0 mils wet, 1.5-2.0 mils dry per coat).

3 EXECUTION

3.1 EXAMINATION

3.1.1 Do not begin installation until substrates have been properly prepared; notify Contract Administrator of unsatisfactory conditions before proceeding. I

3.1.2 Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.

3.1.3 Previously Painted Surfaces: Existing painted surfaces do contain lead based paints. All areas where flaking or loose lead paint was encountered, the areas were hand scraped and encapsulated by City of Winnipeg, including all caulking around interior concrete block windows following Type 1 asbestos abatement procedures, and re-caulked. Repairs to pipe insulation around exterior walls were also completed following Type 1 asbestos procedures.

3.2 SURFACE PREPARATION

3.2.1 General: Surfaces shall be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.

3.2.1.1 Prior to attempting to remove mildew, it is recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions are advised.

3.2.1.2 Remove mildew before painting by washing with a solution of 1-part liquid household bleach and 3-parts of warm water. Apply solution and scrub the

mildewed area. Allow solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow surface to dry before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

- 3.2.1.3 Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- 3.2.2 Aluminum: Remove all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning.
- 3.2.3 Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
- 3.2.4 Concrete: This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems. The requirements of this standard are applicable to all types of cementitious surfaces including cast-in-place concrete walls, masonry walls, and shotcrete surfaces. An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.
- 3.2.5 Cement Composition Siding/Panels: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Allow the surface to dry thoroughly. The pH of the surface should be between 6 and 9 unless the products are designed to be used in high pH environments.
- 3.2.6 Copper and Stainless Steel: Remove all oil, grease, dirt, oxide and other foreign material by solvent cleaning.
- 3.2.7 Exterior Composition Board (Hardboard): Some composition boards may exude a waxy material that must be removed with a solvent prior to coating. Whether factory primed or unprimed, exterior composition board siding (hardboard) must be cleaned thoroughly.
- 3.2.8 Drywall - Exterior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
- 3.2.9 Drywall - Interior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting.
- 3.2.10 Galvanized Metal: Clean per SSPC-SP1 using detergent and water or a degreasing cleaner to remove greases and oils. Apply a test area, priming as required. Allow the coating to dry at least one week before testing.
- 3.2.11 Plaster: Must be allowed to dry thoroughly for at least 30 days before painting unless the products are designed to be used in high pH environments. Room must be ventilated while drying; in cold, damp weather, rooms must be heated. Damaged areas must be repaired

with an appropriate patching material. Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of water. Repeat until the surface is hard, rinse with clear water and allow to dry.

3.2.12 Steel: Structural, Plate, And Similar Items: Should be cleaned by one or more of the surface preparations described below. These methods are used throughout the world for describing methods for cleaning structural steel. Visual standards are available through the Society of Protective Coatings. A brief description of these standards together with numbers by which they can be specified follow.

3.2.12.1 Solvent Cleaning, SSPC-SP1: Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants. Solvent cleaning does not remove rust or mill scale. Change rags and cleaning solution frequently so that deposits of oil and grease are not spread over additional areas in the cleaning process. Be sure to allow adequate ventilation.

3.2.12.2 Hand Tool Cleaning, SSPC-SP2: Hand Tool Cleaning removes all loose mill scale, loose rust, and other detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Before hand tool cleaning, remove visible oil, grease, soluble welding residues, and salts by the methods outlined in SSPC-SP1.

3.3 INSTALLATION

3.3.1 Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendations.

3.3.2 Do not apply to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.

3.3.3 Apply coatings using methods recommended by manufacturer.

3.3.4 Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.

3.3.5 Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.

3.3.6 Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.

3.3.7 Inspection: The coated surface must be inspected and approved by the Contract Administrator just prior to the application of each coat.

3.4 PROTECTION

3.4.1 Protect finished coatings from damage until completion of project.

3.4.2 Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

END OF SECTION